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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,730	06/23/2003	Todd F. Pfleiger	MSFT-1743/303844.1	8726

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EXAMINER
ROSE, HELENE ROBERTA

ART UNIT	PAPER NUMBER
2163	

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/601,730	PFLEIGER ET AL.
	Examiner	Art Unit	
	Helene R. Rose	2163	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _23 June 2003_.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-16_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1-16_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on _23 June 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _23 June 2003_.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

1.   Claims 1-16 have been presented for examination.

2.   Claims 1-16 have been rejected.

Claim Rejection – 35 USC 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form

the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 1-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Manikutty

et al (US Patent No.6,836,778).

Claims 1 and 11:

Regarding claims 1 and 11, Manikutty teaches a method of distributing portions of a

query over two or more execution engines (column 4,lines 51-63, wherein SQL/XML

compliant DBMS, Manikutty), the method comprising:

receiving an input query (see Figure 8, diagram 814 and column 5, line 11-14,

Manikutty);

identifying with a first analysis engine (column 5, 26-29, wherein an XML type

represents a first XML construct, Manikutty), a portion of the input query that can be

processed by a first execution engine (column 6, lines 5-7, Manikutty);

compiling the identified portion of the input query forming a first compiled portion

(column 6, lines 17-20, Manikutty);

rewriting the input query (column 5, lines 4-10, Manikutty) to form a first rewritten

query (column 5, lines 20-25, Manikutty) wherein the identified portion of the input query is

removed from the input query and replaced by a first placeholder (column 5, lines 17-26,

Manikutty);

passing the first rewritten query to a second analysis engine (columns 11-12, lines

65-67 and lines 1-5, respectively, Manikutty);

identifying with the second analysis engine (column 5, lines 30-32, Manikutty) a

portion of the first rewritten query (column 6, lines 3-6, Manikutty) that can be processed by

a second execution engine (column 6, lines 11-25, Manikutty); and

compiling the identified portion of the first rewritten query generating a second

compiled portion wherein the input query is distributed over the first execution engine and

the second execution engine (column 6, lines 17-25, Manikutty).

Claim 2:

Regarding claim 2, Manikutty teaches rewriting the first rewritten query to form a

second rewritten query (column 5, lines 26-35, Manikutty) wherein the identified portion of

the first rewritten query is removed from the first rewritten query (column 5, lines 17-22,

Manikutty) and replaced by a second placeholder (column 5, lines 65-67, Manikutty).

Claim 3:

Regarding claim 3, Manikutty teaches wherein the rewriting act further comprises

wrapping (see Figure 1, diagram142, wherein mapping is one or more other SQL constructs

and its used to convert between data in XML documents) the second compiled portion into

the first compiled portion of the input query (column 5, lines 41-47, Manikutty).

Claims 4 and 14:

Regarding claims 4 and 14, Manikutty teaches wherein the first compiled portion and the second compiled portion may be executed over different data sources (column 7, lines 50-55.wherein a object relational database server is used to import and export documents, Manikutty).

Claims 5 and 16:

Regarding claims 5 and 16, Manikutty teaches wherein a first analysis engine is a structured query language based engine (column 4, lines 51-52 and column 19, lines 63-64, Manikutty) and a second analysis engine is an extensible markup language based engine (column 4, lines 51-52 and column 19, lines 63-64, Manikutty).

Claims 6 and 12:

Regarding claims 6 and 12, Manikutty teaches a method further comprising:

executing partially the second compiled portion using the second execution engine (column 6, lines 11-13, Manikutty) forming the combination of second interim results and the first placeholder, wherein the first placeholder remains an unexecuted part of the second compiled portion(column 13, lines 34-39, wherein it is temporarily in the form of the in-memory representation and its not stored in the database, Manikutty);

generating a call from the second execution engine to the first execution engine requesting (column 30, lines 41-46, Manikutty) the data corresponding to the first placeholder (column 13, lines 34-36, wherein schema-based mapping is generated and corresponding SQL constructs are generated and filed with the contents of the in-memory representation, Manikutty);

executing the first compiled portion using the first execution engine to form first

interim results corresponding to the first placeholder and satisfying the call (column 21, lines

41-52, wherein the first argument in the function call can be executed, Manikutty);

providing the first interim results to the second execution engine (column 23, lines

19-24,Manikutty); and

substituting the first interim results for the first placeholder forming the combination

of second interim results (column 23, lines 26-36, wherein the first argument is substituted,

Manikutty) and first interim results comprising combined input query results (column 6, lines

58-60, wherein XML functions may be used to combined, compare, or change data,

Manikutty).

Claims 7, 9 and 13:

Regarding claims 7, 9, and 13, Manikutty teaches wherein the first execution engine

and the second execution engine operate on queries comprising different data models (see

Figure 2b, diagrams 282a,and 282b, wherein these diagrams are data object model (DOM)

data structures, Manikutty).

Claims 8 and 15:

Regarding claims 8 and 15, Manikutty teaches executing partially the first compiled

portion using the first execution engine forming first interim results (column 21, lines 41-52,

wherein the first argument in the function call can be executed, Manikutty);

generating a call from the first execution engine to the second execution engine

requesting (column 30, lines 41-46, Manikutty) the data corresponding to an unidentified

portion of the input query (column 13, lines 34-39, Manikutty);

executing the second compiled portion using the second execution engine to form second interim results (column 24, lines 51-56, Manikutty) and satisfying the call (column12, lines 30-38, Manikutty).

providing the second interim results to the first execution engine (see Figure 6, all features, wherein results are return in the new document, Manikutty); and

combining the first interim results with the second interim results to form combined input query results (column 6, lines 58-60, wherein XML functions may be used to combined, compare, or change data, Manikutty).

Claim 10:

Regarding claim 10, Manikutty teaches a system for distributive processing of an input query (column 4,lines 51-63 and see Figure 8, diagram 814, Manikutty), the system comprising:

two or more analysis engines for separating out portions of the input query that can be compiled and executed (column 13, lines 54-61, Manikutty);

two or more execution engines for operation on the input query (column 29, lines 24-31,Manikutty); and

access to one or more data sources (column 6, lines 48-55, Manikutty), wherein the two or more analysis engines operate to independently identify (column 6, lines 26-37, wherein XML schema operate independently to identify one XML document and column 8, lines 37-41, Manikutty) and compile one or more portions (column 6, lines 17-18, Manikutty) of the input query (see Figure 8, diagram 814, Manikutty) wherein:

at least one of the two or more analysis engines rewrites the input query (column 5, lines 4-10, Manikutty) to remove the portion of the input query that corresponds to an execution engine (column 5, lines 17-26, Manikutty); and

the two or more execution engines (see Figure 1, diagrams 102,110, and 130, wherein each one of these diagrams perform a function to execute, Manikutty) process the one or more compiled portions (column 7, lines 62-64, wherein one or more SQL constructs are compiled, Manikutty) of the input query (see Figure 8, diagram 814, Manikutty) such that partial query results from one execution engine are passed to a subsequent execution engine (column 6, lines 11-13, Manikutty) and combined to form overall input query results (see Figure 7, diagram 740a, all features, Manikutty).

Prior Art Made of Record

1. <u>Vlahos et al</u> (US Publication No. 2002/0133504) discloses a distributed data processing system that may include an interface receiving a data processing request from a requesting entity, a processing server to provide access to local data processing applications, a shadow processing server to provide access to remote data processing applications, and an application server to fulfill the received data processing request by selectively accessing locally wherein and remote data processing applications transparently to the requesting entity.
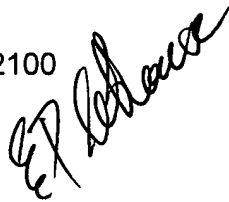
Point of Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene R. Rose whose telephone number is (571) 272-0749. The examiner can normally be reached on 8:00am - 4:30pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (571) 272-4023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Helene R Rose
Technology Center 2100
November 30, 2005